

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ה' 26.10.2017 (ו' בחשוון, תשע"ח), בניין דן-קאהן, אודיטוריום 1, 13:30.

**מרצה:** קרן שם-טוב יונה

**מנחה:** פרופ' דניאל ריטל

**על הנושא:**

## Mechanical reliability of dental implants

The seminar will be given in English

**להלן תקציר ההרצאה:**

With the growing use of dental implants, so grows the incidence of implants' failures. Late treatment complications, after reaching full osseointegration and functionality, include mechanical failures, such as fracture of the implant and its components. Those complications are deemed severe in dentistry, albeit usually considered as rare, and therefore seldom addressed in the clinical literature.

The introduction of dental implants into clinical practice fostered a wealth of research on their biological aspects. By contrast, mechanical strength and reliability issues were seldom investigated in the open literature, so that most of the information to date remains essentially with the manufacturers.

Over the years, dental implants have gone through major changes regarding the material, the design, and the surface characteristics aimed at improving osseointegration. Did those changes improve the implants' mechanical performance?

This talk will present results on various aspects of the mechanical integrity and failure of dental implants. The concept of fatigue failure will be presented in its aspects of identification (failure analysis), causes (surface condition), and working environment (loads, intraoral atmosphere).

A novel in-vitro approach to fatigue functional performance of dental implants will be discussed.

בברכה,

ד"ר אילנה שמואל אלוזובסקי  
מרכז הסמינרים